

## **DRAFT MEETING MINUTES**

### **Broward Water Resources Task Force**

Friday, October 10, 2008, 11:00 AM

Broward County Government Center West  
1 N. University Drive, 2<sup>nd</sup> Floor Hearing Room  
Plantation, Florida 33324

#### **Summary:**

The meeting began at 11:15 a.m. The Chair, Ms. Shannon Estenoz, gave welcoming remarks. Following this, roll calls were taken (see attendance list below) for both the Water Resources Task Force (WRTF) and the Technical Team (TT). Chair Estenoz announced a quorum following the arrival of several Task Force members during the roll call. Ms. Estenoz commended staff for their preparatory work and explained that the purpose of the meeting today was to get everyone on the same page as far as a basic understanding of our water systems. She mentioned that the core of the meeting today would be a presentation by Pat Davis on how things work and a presentation by Mike Zygnerski on saltwater intrusion. She asked for approval of the minutes from the September 19 meeting. The minutes were approved, seconded, and unanimously adopted.

Albert Perez provided an overview of the first TT meeting on Oct 3rd. He mentioned that he had been nominated and approved as Chair of the TT and Randy Brown was nominated and approved as Vice Chair. He mentioned that the TT had been made aware of Sunshine requirements by County Attorney Michael Owens and thanked him. The TT has established monthly meetings, following WRTF. He mentioned that the TT would seek feedback on whether it would be appropriate to gather information, develop subcommittees, and bring together the 10 year facility workplans. He also requested that directives from WRTF be specific.

Ms. Estenoz mentioned that the Third meeting would look at the Lower East Coast Water Supply Plans, population projections, and demands and that gathering information was a good idea. Dr. Jurado then summarized changes to the updated task force procedures which included changes to the mission statement to reflect water quality, adding language as suggested by Michael Owens in the previous meeting on enabling legislation, added duties and responsibilities, the desired response of the TT, and clarified the process for appointing alternates. There was a discussion on who could make alternate appointments and it was clarified that those needed to be made by the initial appointing body. Mr. Schwartzberg asked if the language about absentees applies to the TT as well and if not, does the TT have the ability to make it a rule. Commissioner Jacobs suggested both groups play by the same rules. There was a motion to make the standards for the TT the same as the WRTF. The motion was seconded and approved. Mayor Kaplan made a motion to approve the procedures as amended today. The motion was seconded and unanimously approved.

A brief presentation on the new WRTF website was made by Carole Morris. Access to the site is through <http://sfwmd.gov/broward> which takes you to the SFWMD Broward Service Center homepage. The Task Force heading is on the left column halfway down and includes

information about the WRTF, its mission, duties, rules, membership directories, and resolutions. On the top are four tabs with the headings – Home, Meetings, Presentations, and Related Materials. Ms. Morris mentioned that the website is a work in progress. Mayor Kaplan suggested a link to the Broward County homepage. Commissioner Jacobs suggested that additionally, the new irrigation rule should be added. There was a suggestion for an inbox or discussion board for public comment so that we can get public comments without the public having to come to the meeting. Commissioner Jacobs suggested comments go to staff and then be distributed, looking for something that basically generates e-mails. Chair Estenoz asked the WRTF if they are comfortable with allowing staff to review and determine appropriate course of action for comment. There was general agreement. Ms. Morris again reiterated that the website is meant to be a resource for WRTF. They are working to get together materials in a succinct format. Chair Estenoz suggested that when WRTF members are in their cars, they should look for water structures to familiarize themselves with the system. Commissioner Webb-Murphy asked for clarification on the legality of WRTF members talking with TT members outside of the joint Water Resource Task Force/Technical Team meetings. Attorney Owens said that since the Water Resources Task Force and the Technical Team are separate collegial bodies, it is acceptable for conversations outside of joint meetings to take place between WRTF and TT members. If conversations are held however between two or more WRTF members or between two or more Technical Team members, those conversations need to be public noticed under the Florida Sunshine requirements.

Pat Davis of Hazen & Sawyer made a presentation on “How Things Work” with a description of our water resources in their totality. He offered that he hoped to provide a fundamental understanding of how the water management system works and an overview of pertinent rules and regulations. His presentation would not be a review of alternatives. He started off with saying there are three categories of water – the water we use, wastewater, and stormwater as discussed from both a drainage and water supply perspective. All are interconnected. Mr. Davis passed around geologic core samples and explained our aquifer systems. He also passed around water samples from our aquifers.

Mr. Davis mentioned that the Biscayne Aquifer is afforded lots of protection by regulations. He then discussed water treatment systems and how they are evolving from lime softening to membrane softening. There are 33 water treatment plants in Broward County. He then discussed the historic design principles used for water treatment plants: 1) Use best quality for human consumption; 2) Don't cause saltwater intrusion; 3) Don't impact neighboring systems; and 4) Don't impact wetlands. Moving onto wastewater, Mr. Davis mentioned that wastewater decisions have been driven by Broward's hydrology. Our history includes small package plants discharging to surface waters or percolating into the aquifer. As the population grew, we began to rethink these methods of disposal, and with federal funding through the 201 facilities program, we moved to get rid of surface water discharges and groundwater recharge, by replacing the small package plants with regional facilities achieving 90% removal. Effluent is now disposed through ocean outfalls or injection wells, with some small amount of reuse. There are 15 wastewater treatment plants, although most wastewater is treated in three plants - Hollywood, Fort Lauderdale (next to the Convention Center), and the County's facility on Copans Road. The basic design principles for wastewater plants is to separate water from wastewater and reduce nutrient loads to surface water. Mr. Davis then talked about stormwater management. He used a graphic of beakers and explained that the stormwater system is not just drainage, but also for water supply. Mr. Davis explained the

regional system and how and why we had drained and lowered the groundwater level in Broward County. The fundamental design principles remain even though some things have changed. He mentioned that three key regulations will guide us in the future; the Regional Water Availability Rule, ocean outfall legislation, and Department of Community Affairs mandates. He then explained each of these regulations. He stated that, because of the Regional Water Availability Rule, we can't increase withdrawals from the Biscayne Aquifer. He also discussed the different needs for water among communities. Next, Mr Davis discussed the ocean outfalls in Broward County and mentioned that SB1302 requires that the outfalls be eliminated by 2025. The concept is to take 60% of the discharge from the outfalls back into the regional system. This is a complex and technically challenging task and water to be made available from elimination of the outfalls may not be proximal to where it is needed.

Commissioner Jacobs mentioned that 40% of the current outfall discharge has to be disposed of elsewhere and only 2 utilities are subject to this 40% requirement. Mr. Davis discussed the 10-year Water Supply Facilities Work Plans as mechanisms to inform the State about construction plans to be put in place over the next 10 years to meet the terms of the Regional Water Availability Rule. He stated further in an ideal world we would just build now, but can't do that because we are in a very dynamic period with changing population. We may be overbuilding. Also, two day a week water restrictions are going to change things. Mayor Kaplan inquired about how often we recalculate projections. Mr. Davis said utilities would prefer to build for 20 years, but they are going to only plan now for 10 years because things change rapidly, but we don't have the flexibility to wait to see how things are working out. The 5 year time clock upon which utilities can borrow water is starting now. Commissioner Jacobs inquired if all Broward water suppliers had submitted their 10-year plans. John Mulliken indicated that about 50% of Broward County suppliers have submitted plans and only one is approved, with another expected soon. Responding to a question of what happens to suppliers that don't complete their plans on time, Mr. Mulliken answered that there is no penalty clause, but projects can be denied. Miami has had problems with permits. Randy Brown mentioned that it took six months to start the plan process and prepare guidelines, so it was natural for some delay. Mayor Kaplan talked about raising capital in this economic environment. Chair Estenoz pointed to Miami's success at water conservation and that if there is a reduced demand, the District provides option of growing against water conservation. Commissioner Jacobs would like to see water conservation efforts ramped up significantly. Mr. Davis remarked that utility directors have to make tough decisions on how much water conservation is appropriate. Finally, Mr. Davis mentioned that the projects listed in the 10-year plans may not be the best at this time - we also need to look at sub-regional possibilities.

Chair Estenoz asked members to eat, so that they could work through lunch. Council member Starkey asked for clarification on the 201 process and if some wastewater plants are still in existence. Mr. Davis replied that most chose to convert in order to receive federal funding. Commissioner Jacobs mentioned that using 60% of the current outfall discharge for reuse may affect our water quality, our interface is delicate, there could be potential impacts to coral reefs, and that we can't take 60% of it and inject it, so the big question is where we can put it. Chair Estenoz inquired as to when we were going to have a water quality discussion as part of the WRTF. Dr. Jurado pointed to Meeting 7 on the meeting schedule.

The next presentation was made by Michael Zygnerski of the Broward County Natural Resources Planning and Management Division. Mr. Zygnerski provided a presentation on

saltwater intrusion with an overview and history of drainage, specifically looking at the northern portion of the County. While groundwater levels were lowered for agriculture, in the central part of the County levels were actually raised from over irrigation. He pointed to the level of freshwater versus the level of saltwater as key to understanding saltwater intrusion. He then discussed how the system changed from 1900 to the 1960's and discussed how some wellfields needed to be moved inland as a measure to combat saltwater intrusion. He pointed to the Palm Aire wellfield as an example to offset problems in the Pompano wellfield. This helped augment the coastal wellfields and raised water levels. Mr. Zygnerski talked about the stressors of land use and population growth and then pointed out that it is a highly managed system designed to try and bring more freshwater to the coast. He discussed sea level rise and how the County/USGS model analyzes sea level rise, before he provided additional information on model development and calibration. The model was tested using historical information. The model is now being used to look 100 years into the future, including sea level rise under three different scenarios. The work to date specifically looks at two wellfields - 2a and Pompano. Generally, higher sea level results in higher chlorides in groundwater. The system is currently still coming into equilibrium. In summary, he concluded that it is possible to calibrate a variable density (saltwater intrusion) model. Shifting wellfields is an effective strategy for saltwater intrusion, and that sea level rise will certainly have an effect on a number of wells. He concluded with an animation over time of how the groundwater/saltwater interface has moved. Commissioner Jacobs pointed out that the work to date only represents the northern third of the County. Dr. Jurado discussed plans to extend the model to other portions of the County. Mr. Heimlich talked about concerns with melting ice in Greenland and the Arctic and that sea level rise may be much greater than currently discussed. Finally, Mr. Zygnerski shared a video clip of a camera going down a well through the Biscayne aquifer to show the variability in the structure of the aquifer.

Chair Estenoz mentioned that the next meeting of the WRTF is a field trip. Dr. Jurado discussed the logistics of the field trip. She stated that while the field trip was originally intended for WRTF members only, if Technical Team members wished to participate they could do so by driving their own vehicles to the sites to be visited, as there are limited seats on the bus to be chartered for the trip. Chair Estenoz said the WRTF's homework was to RSVP on the field trip, review the website, and be cognizant of water control structures while driving around as part of one's normal day to day activities.

A motion to adjourn was approved and the meeting ended at 1:15 p.m.

## ATTENDANCE

### Task Force:

Lisa Aronson, Commissioner, City of Coconut Creek  
Douglas Bell, Chair, Central Broward Water Control District Board of Commissioners  
Peter Bober, Mayor, City of Hollywood  
Shannon Estenoz, Governing Board Member, South Florida Water Management District  
Beth Flansbaum-Talabisco, Mayor, City of Tamarac  
Tom Good, Treasurer, South Broward Drainage District  
Glen Hanks, Secretary, Coral Springs Improvement District Board of Supervisors

Cindi Hutchinson, Commissioner, City of Fort Lauderdale  
Kristin Jacobs, Commissioner, Broward County Board of County Commissioners  
Richard Kaplan, Mayor, City of Lauderdale  
Jack McCluskey, Commissioner, City of Pembroke Pines  
Donald Rosen, Assistant Deputy Mayor, City of Sunrise  
Susan Starkey, Councilmember, Town of Davie  
Allegra Webb Murphy, Commissioner, City of Oakland Park

Technical Team:

William Brant, Public Works Director, City of Hallandale Beach  
Steven Bassett, REP Associates, Inc., for the So. Fla. Chapter U.S. Green Building Council  
Earl King for William Brant, Public Works Director, City of Hallandale Beach  
Larry Duemmling for Hank Breitenkam, Director of Utilities, City of Plantation  
Randy Brown, Director of Utilities, City of Pompano Beach  
Julie Leonard for Albert Carbon, Public Works Director, City of Fort Lauderdale  
Hector Castro, Assistant Director of Utilities, City of Sunrise  
Heather Cunniff, City Planner, City of Lauderdale  
Ray Gagnon, Director of Utilities, City of Tamarac  
Alan Garcia, Director, Broward County Water & Wastewater Services  
Jennifer Jurado, Director, Broward County Natural Resources Planning & Management Div.  
Dylan Larson, Miller-Legg, for the Builders Association of South Florida  
Linda Brien for Jack Long, Director, FDEP Southeast District  
Timothy Mayer, Environmental Administrator, Broward County Health Department  
Joe McLaughlin, Professional Engineer, City of Pembroke Pines  
John Mulliken, Director, SFWMD Planning & Resource Evaluation Division  
Albert Perez, Director of Public Utilities, City of Hollywood  
Raj Verma, Director of Utilities & Engineering, City of Coconut Creek  
Leo Schwartzberg, District Director, South Broward Drainage District  
David Womacks, Public Works Director, City of Oakland Park

Other Attendees:

Richard Allen, Broward County PRD  
Toni Edwards, Water Resources Manager, Broward County Nat. Res. Planning & Mgmt. Div.  
Barry Heimlich, CUES-FAU  
Gary Hines, School Board of Broward County  
Steve Lamb, MFL  
Keith London, Commissioner, City of Hallandale Beach  
Carole Morris, Lead Intergovernmental Representative, Broward Service Center, SFWMD  
Eric Myers, Assistant Director, Broward County Env. Prot. & Growth Mgmt. Dept.  
Michael Owens, Senior Assistant County Attorney, Broward County Office of County Attorney  
Constance Ruppender, Central Broward Water Control District  
Robert Rudolph, Nat. Res. Specialist III, Broward County Nat. Res. Planning & Mgmt. Div.  
Robert Shair, City of Hollywood  
Heather Stone, Aide to Comm. Jacobs, Broward County Board of County Commissioners  
Ken Todd, Palm Beach County  
Patti Webster, Env. Project Coordinator, Broward County Nat. Res. Planning & Mgmt. Div.